14 MAR 2008

Robert Hammond
Wolf Creek Nuclear Operating Corporation
1550 Oxen Lane NE, PO Box 411
Burlington, KS 66839

RE: Invitation to attend the 2008 National Corrective Action Conference, June 3-4, 2008, New Orleans, LA

Dear Mr. Hammond:

The Environmental Protection Agency's (EPA) 2008 National Corrective Action Conference is scheduled for June 3-4, 2008 in New Orleans, Louisiana and EPA Headquarters is inviting representatives of facilities on the "2020 RCRA Corrective Action Universe" to attend.

We recently notified you that your facility is among the 3,746 industrial sites across America that are part of the "2020 RCRA Corrective Action Universe." EPA has set an aggressive goal of having cleanup needs addressed at all sites in this universe by the year 2020. Attending the conference would provide you the opportunity to obtain background, tools, and strategies to help you address these cleanup obligations at your facility. It is also an ideal forum for networking with other members of the regulated community who face similar issues, as well as government regulators, community leaders, engineering consultants, and other stakeholders involved in the cleanup of hazardous waste sites.

For detailed information concerning the conference, including hotel and Conference registration instructions, please visit the conference website at: http://www.epacaconf.com. An agenda for the meeting will be posted on the website soon. Feel free to give me a call if you have an interest in attending but have questions about the meeting.

Sincerely,

Daniel R. Gravatt, PG
EPA Region 7
AWMD / RCAP
901 N. 5th St.
Kansas City, KS 66101
(913) 551-7324

AWMD/RCAP:cas:h:/DGRAVATT/WOLFCREEKNCACINVITE.DOC/031408
RCAP
GRAVATT
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

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For detailed information concerning the conference, including hotel and Conference registration instructions, please visit the conference website at: http://www.epacaconf.com. An agenda for the meeting will be posted on the website soon. Feel free to give me a call if you have an interest in attending but have questions about the meeting.

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DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action
Environmental Indicator (EI) RCRA Info code (CA750)
Migration of Contaminated Groundwater Under Control

Facility Name: Wolf Creek Nuclear Generating Station
Facility Address: 1550 Oxen Road NE, Burlington, KS 66839
Facility EPA ID #: KSD000686956

DETERMINATION RESULT: YE

1. Has **all** available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

__X__ If yes - check here and continue with #2 below.

_____ If no - re-evaluate existing data, or

_____ if data are not available, skip to #8 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRA Info national database ONLY as long as they remain true (i.e., RCRA Info status codes must be changed when the regulatory authorities become aware of contrary information).

2. Is **groundwater** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria [e.g., Maximum Contaminant Levels (MCLs), the maximum permissible level of a contaminant in water delivered to any user of a public water system under the Safe Drinking Water Act]) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

_____ If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

__X__ If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

The Wolf Creek Nuclear Generating Station in Burlington, Kansas is on the 2020 GPRA baseline solely due to an on-site mixed waste storage area operated under interim status by the facility. The facility is a nuclear power plant operating under license NPF-42 issued by the Nuclear Regulatory Commission on June 4, 1985 which includes by reference mixed waste storage regulations codified in 10 Code of Federal Regulations (CFR) Chapter I and implemented in NRC guidance documents GL 81-38 and IN 90-09.

This facility was not on the 2008 GPRA Corrective Action Baseline and has not had a RCRA Facility Assessment performed, so no SWMUs or AOCs have been formally designated. Based on a review of the RCRA files, areas for potential releases to the environment were identified as follows:

- Less-than-90-day hazardous waste storage area (container storage)
- Used oil storage area, consisting of several 55-gallon drums and one 4,000 gallon AST
- Fire Training Area east of the fire training building
- Satellite accumulation areas in the Rad Waste Building , Turbine Lab, Outage Support Building, Maintenance Shop Lab, Security Building Classroom, Weld Shop, Electrical Maintenance Building, Oil Room, Vehicle Maintenance Shop, Civil Test Lab, Paint Waste Accumulation Area, Chemistry Lab and Paint Shop
- Mixed waste storage area (interim status)
- Parts washers in the Mechanical Maintenance Shop and Vehicle Maintenance Shop
- Universal Waste storage areas in the Outage Support Building and Civil Test Lab
- Film developing equipment in the Radiology Lab

Of these areas with the potential for releases, only the Fire Training Area was not evaluated in the inspections discussed below. This fire training area consists of a 20,000 square foot concrete area adjacent to the facility's Fire Training Building. According to the facility's 1999 Open Burning Exemption Request to KDHE, fires at this training area are fueled by propane, diesel fuel and/or class A combustible materials, and typically use no more than

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[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

10 gallons of liquid fuel. At that time, the facility intended to conduct fire training exercises weekly. Because the use of liquid fuels is confined to the impermeable concrete slab to minimize the potential for contamination of soil and groundwater, the fire training area does not appear to pose a significant risk of releases of hazardous materials to the environment.

EPA performed a RCRA Compliance Evaluation Inspection at the facility in February 2005 which included all of the areas for potential releases listed above with the exception of the Fire Training Area. All storage areas were found to be in full compliance with RCRA regulations, no releases or evidence of releases of hazardous material were noted, and no violations of any kind were issued.

Numerous inspections of the facility have been conducted by KDHE, the most recent of which were conducted in August 2004, February 2002, December 2000, July 1999, May 1997, August 1994 and May 1992. These state inspections targeted the same waste storage areas examined by EPA in the 2005 inspection. No violations of any kind were noted in the August 2004 and February 2002 state inspections. The December 2000 state inspection noted only one violation, a failure to label one satellite accumulation container as containing hazardous waste.

The July 1999 state inspection found ten violations: four for paperwork issues; two for waste containers not labeled as containing hazardous waste; one for an open satellite accumulation container; one for a failure to make a waste determination for one used filter sock; one for illegal off-site disposal of hazardous waste rags; and one for illegal disposal of solid waste on-site by open burning. The inspector noted that the wastes at the open burning area included primarily wood products but also included some plastic items as well. None of these violations indicate any releases of hazardous materials at the facility.

The May 1997 state inspection found eight violations: six for paperwork issues; one for missing warning signs at the less-than-90-day storage area; and one for five 55-gallon drums of hazardous waste in the less-than-90-day storage area being in poor condition. The inspector noted that the lids of these five drums were corroded. The inspector also noted that several drums of non-hazardous waste in this storage area were in poor condition, and two of these had leaked slightly onto the floor. As the less-than-90-day storage facility has a sealed and bermed floor, there are no apparent releases of hazardous materials to the environment from any of these drums.

The August 1994 state inspection found two violations: one for an open container in the less-than-90-day storage area; and one for five one-gallon jugs in the less-than-90-day storage area which were not labeled as containing hazardous waste. The May 1992 state inspection found no violations of any kind.

All violations noted in these state inspections were satisfactorily addressed by the facility during or after the inspections, and none of the violations re-occurred.

Mixed waste (ie. waste that is both hazardous and radioactive) is not currently being stored at the mixed waste storage area and has not been stored there since October 24,1997. The facility is keeping the mixed waste storage area open in case off-site disposal of mixed waste becomes unavailable in the future. The facility has submitted a closure plan and closure financial assurance documentation to KDHE for the mixed waste storage area. Based on currently available file information, there are no known or reasonably suspected releases to the environment.

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"[2] as defined by the monitoring locations designated at the time of this determination)?

_____ If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"[2]).

_____ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"[2]) - skip to #8 and enter "NO" status code, after providing an explanation.

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

Not Applicable.

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[2] "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

_____ If yes - continue after identifying potentially affected surface water bodies.

_____ If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

_____ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

Not Applicable.

5. Is the **discharge** of "contaminated" groundwater into surface water likely to be **"insignificant"** (i.e., the maximum concentration[3] of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

_____ If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration[3] of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

_____ If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration[3] of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations[3] greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

_____ If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

Not Applicable.

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[3] As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

6. Can the **discharge** of "contaminated" groundwater into surface water be shown to be "**currently acceptable**" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented[4])?

_____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment[5], appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

_____ If no - (the discharge of "contaminated" groundwater can not be shown to be "**currently acceptable**") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

_____ If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s):

Not Applicable.

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[4] Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

[5]The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

_____ If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

_____ If no - enter "NO" status code in #8.

_____ If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

Not Applicable.

8. Check the appropriate RCRA Info status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

__X__ YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Wolf Creek Nuclear Generating Station facility, EPA ID # KSD000686956, located at 1550 Oxen Drive NE, Burlington, KS. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

____ NO - Unacceptable migration of contaminated groundwater is observed or expected.

____ IN - More information is needed to make a determination.

Completed by _____ Date 01/28/2009
(signature)
Dan Gravatt
Project Manager, RCRA Corrective Action & Permits Branch
EPA Region 7

Supervisor _____ Date 1/29/09
(signature)
Lynn Slugantz
Branch Chief, RCRA Corrective Action & Permits Branch
EPA Region 7

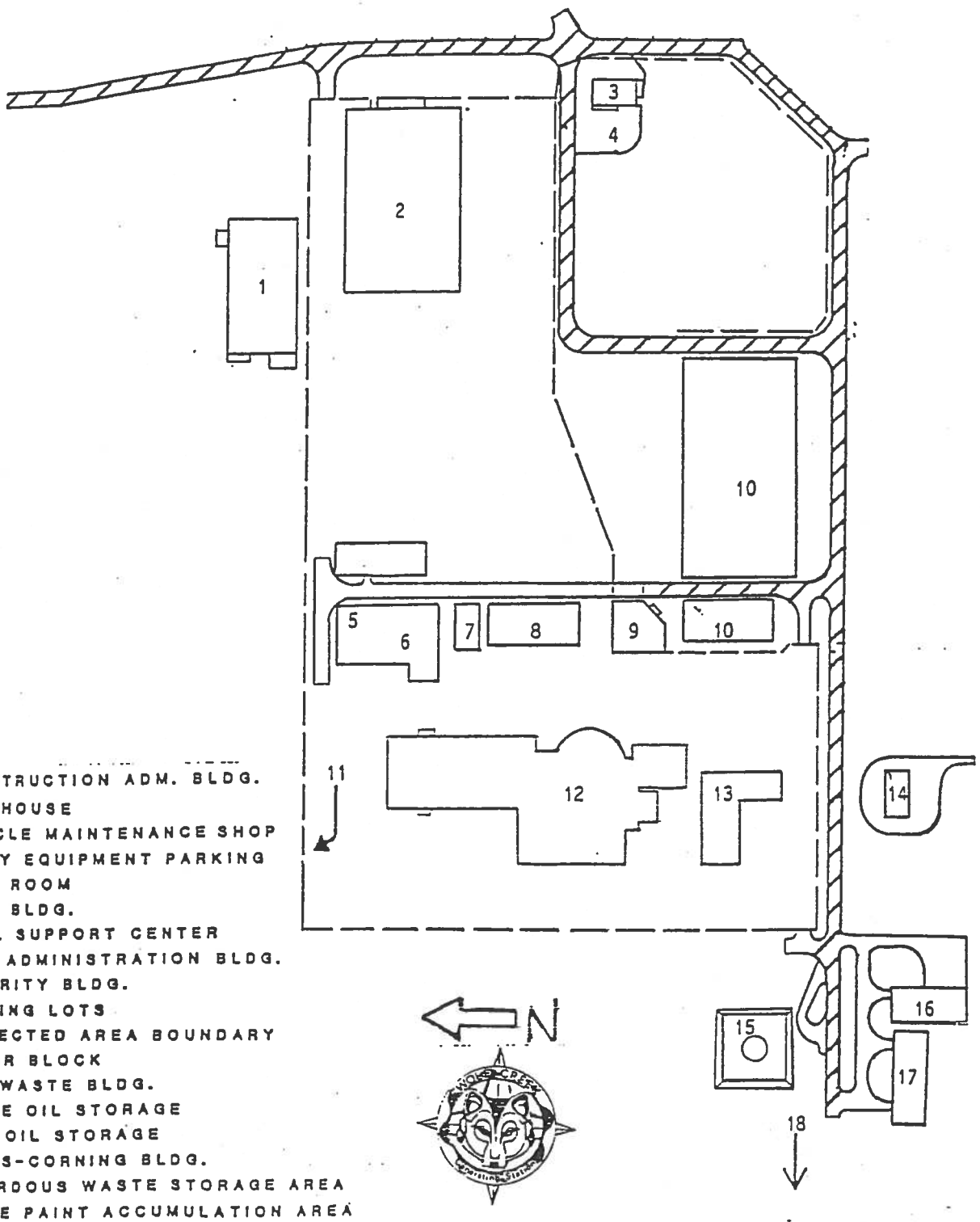
Locations where References may be found:

EPA Region 7 Headquarters
RCRA Files
901 North 5th Street
Kansas City, Kansas 66101

Contact telephone and e-mail numbers

Dan Gravatt
(913) 551-7324
gravatt.dan@epa.gov

SKETCH 3
WCGS DETAIL (ENTRANCE & EXIT ROUTES)



1 CONSTRUCTION ADM. BLDG.
2 WAREHOUSE
3 VEHICLE MAINTENANCE SHOP
4 HEAVY EQUIPMENT PARKING
5 TOOL ROOM
6 SHOP BLDG.
7 TECH. SUPPORT CENTER
8 OPS. ADMINISTRATION BLDG.
9 SECURITY BLDG.
10 PARKING LOTS
11 PROTECTED AREA BOUNDARY
12 POWER BLOCK
13 RAD-WASTE BLDG.
14 WASTE OIL STORAGE
15 FUEL OIL STORAGE
16 OWENS-CORNING BLDG.
17 HAZARDOUS WASTE STORAGE AREA
18 WASTE PAINT ACCUMULATION AREA

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action
Environmental Indicator (EI) RCRA Info code (CA725)
Current Human Exposures Under Control

Facility Name: Wolf Creek Nuclear Generating Station
Facility Address: 1550 Oxen Lane NE, Burlington, KS 66839
Facility EPA ID #: KSD000686956

DETERMINATION RESULT: YE

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

__X__ If yes - check here and continue with #2 below.

_____ If no - re-evaluate existing data, or

_____ if data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of

1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRA Info national database ONLY as long as they remain true (i.e., RCRA Info status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria [e.g., Maximum Contaminant Levels (MCLs), the maximum permissible level of a contaminant in water delivered to any user of a public water system under the Safe Drinking Water Act] from releases subject to RCRA Corrective Action (from SWMUs, RUs, or AOCs)?

Media	Yes	No	?	Rationale/Key Contaminants
Groundwater		X		
Air (indoors)[2]		X		
Surface Soil (e.g., <2 ft)		X		
Surface Water		X		
Sediment		X		
Subsurf. Soil (e.g., >2 ft)		X		
Air (outdoors)		X		

__X__ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

_____ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

_____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

The Wolf Creek Nuclear Generating Station in Burlington, Kansas is on the 2020 GPRA baseline solely due to an on-site mixed waste storage area operated under interim status by the facility. The facility is a nuclear power plant operating under license NPF-42 issued by the Nuclear Regulatory Commission on June 4, 1985 which

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[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

[2]Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

includes by reference mixed waste storage regulations codified in 10 Code of Federal Regulations (CFR) Chapter I and implemented in NRC guidance documents GL 81-38 and IN 90-09.

This facility was not on the 2008 GPRA Corrective Action Baseline and has not had a RCRA Facility Assessment performed, so no SWMUs or AOCs have been formally designated. Based on a review of the RCRA files, areas for potential releases to the environment were identified as follows:

- Less-than-90-day hazardous waste storage area (container storage)
- Used oil storage area, consisting of several 55-gallon drums and one 4,000 gallon AST
- Fire Training Area east of the fire training building
- Satellite accumulation areas in the Rad Waste Building , Turbine Lab, Outage Support Building, Maintenance Shop Lab, Security Building Classroom, Weld Shop, Electrical Maintenance Building, Oil Room, Vehicle Maintenance Shop, Civil Test Lab, Paint Waste Accumulation Area, Chemistry Lab and Paint Shop
- Mixed waste storage area (interim status)
- Parts washers in the Mechanical Maintenance Shop and Vehicle Maintenance Shop
- Universal Waste storage areas in the Outage Support Building and Civil Test Lab
- Film developing equipment in the Radiology Lab

Of these areas with the potential for releases, only the Fire Training Area was not evaluated in the inspections discussed below. This fire training area consists of a 20,000 square foot concrete area adjacent to the facility's Fire Training Building. According to the facility's 1999 Open Burning Exemption Request to KDHE, fires at this training area are fueled by propane, diesel fuel and/or class A combustible materials, and typically use no more than 10 gallons of liquid fuel. At that time, the facility intended to conduct fire training exercises weekly. Because the use of liquid fuels is confined to the impermeable concrete slab to minimize the potential for contamination of soil and groundwater, the fire training area does not appear to pose a significant risk of releases of hazardous materials to the environment.

EPA performed a RCRA Compliance Evaluation Inspection at the facility in February 2005 which included all of the areas for potential releases listed above with the exception of the Fire Training Area. All storage areas were found to be in full compliance with RCRA regulations, no releases or evidence of releases of hazardous material were noted, and no violations of any kind were issued.

Numerous inspections of the facility have been conducted by KDHE, the most recent of which were conducted in August 2004, February 2002, December 2000, July 1999, May 1997, August 1994 and May 1992. These state inspections targeted the same waste storage areas examined by EPA in the 2005 inspection. No violations of any kind were noted in the August 2004 and February 2002 state inspections. The December 2000 state inspection noted only one violation, a failure to label one satellite accumulation container as containing hazardous waste.

The July 1999 state inspection found ten violations: four for paperwork issues; two for waste containers not labeled as containing hazardous waste; one for an open satellite accumulation container; one for a failure to make a waste determination for one used filter sock; one for illegal off-site disposal of hazardous waste rags; and one for illegal disposal of solid waste on-site by open burning. The inspector noted that the solid wastes at the open burning area included primarily wood products such as pallets, but also included some plastic items as well. None of these violations indicate any releases of hazardous materials at the facility.

The May 1997 state inspection found eight violations: six for paperwork issues; one for missing warning signs at the less-than-90-day storage area; and one for five 55-gallon drums of hazardous waste in the less-than-90-day storage area being in poor condition. The inspector noted that the lids of these five drums were corroded. The inspector also noted that several drums of non-hazardous waste in this storage area were in poor condition, and two

of these had leaked slightly onto the floor. As the less-than-90-day storage facility has a sealed and bermed floor, there are no apparent releases of hazardous materials to the environment from any of these drums.

The August 1994 state inspection found two violations: one for an open container in the less-than-90-day storage area; and one for five one-gallon jugs in the less-than-90-day storage area which were not labeled as containing hazardous waste. The May 1992 state inspection found no violations of any kind.

All violations noted in these state inspections were satisfactorily addressed by the facility during or after the inspections, and none of the violations re-occurred.

Mixed waste (ie. waste that is both hazardous and radioactive) is not currently being stored at the mixed waste storage area and has not been stored there since October 24,1997. The facility is keeping the mixed waste storage area open in case off-site disposal of mixed waste becomes unavailable in the future. The facility has submitted a closure plan and closure financial assurance documentation to KDHE for the mixed waste storage area. Based on currently available file information, there are no known or reasonably suspected releases to the environment.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table							
"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater							
Air (indoors)							
Soil (surface, e.g., <2 ft)							
Surface Water							
Sediment							
Soil (subsurface e.g., >2 ft)							
Air (outdoors)							

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated") as identified in #2 above.

2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

_____ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

_____ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

_____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

Not Applicable.

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[3]Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

   _____ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

   _____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

   _____ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

Not Applicable.

[4]If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

5. Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

_____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):

Not Applicable.

6. Check the appropriate RCRA Info status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

__X__ YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Wolf Creek Nuclear Generating Station facility, EPA ID # KSD000686956, located at 1550 Oxen Lane NE, Burlington, KS under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

____ NO - "Current Human Exposures" are NOT "Under Control."

____ IN - More information is needed to make a determination.

Completed by _____ Date 01/28/2009
(signature)
Dan Gravatt
Project Manager, RCRA Corrective Action & Permits Branch
EPA Region 7

Supervisor _____ Date 1/28/09
(signature)
Lynn Slugantz
Branch Chief, RCRA Corrective Action & Permits Branch
EPA Region 7

Locations where References may be found:

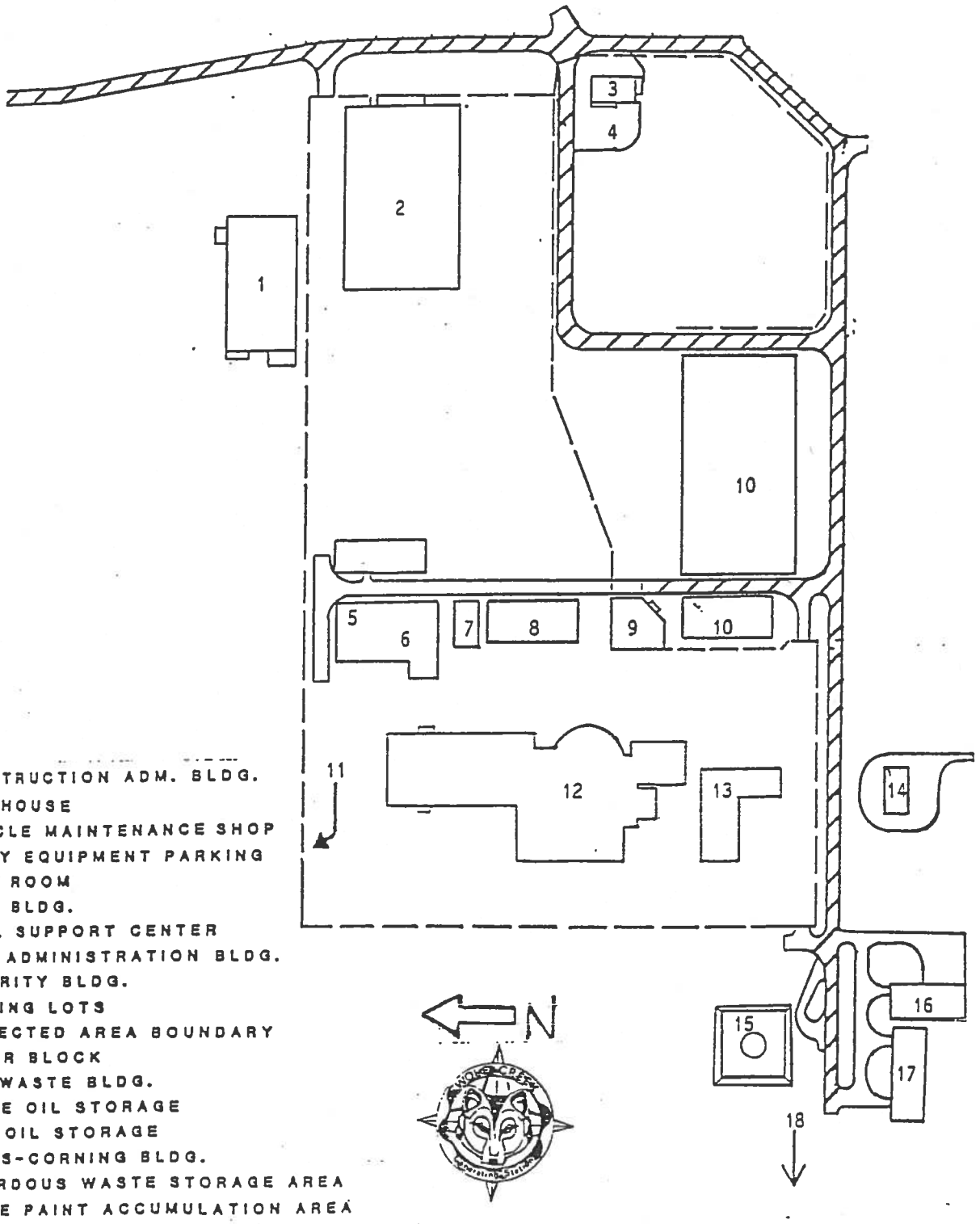
EPA Region 7 Headquarters
RCRA Files
901 North 5th Street
Kansas City, Kansas 66101

Contact telephone and e-mail numbers

Dan Gravatt
(913) 551-7324
gravatt.dan@epa.gov

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

SKETCH 3
WCGS DETAIL (ENTRANCE & EXIT ROUTES)



1 CONSTRUCTION ADM. BLDG.
2 WAREHOUSE
3 VEHICLE MAINTENANCE SHOP
4 HEAVY EQUIPMENT PARKING
5 TOOL ROOM
6 SHOP BLDG.
7 TECH. SUPPORT CENTER
8 OPS. ADMINISTRATION BLDG.
9 SECURITY BLDG.
10 PARKING LOTS
11 PROTECTED AREA BOUNDARY
12 POWER BLOCK
13 RAD-WASTE BLDG.
14 WASTE OIL STORAGE
15 FUEL OIL STORAGE
16 OWENS-CORNING BLDG.
17 HAZARDOUS WASTE STORAGE AREA
18 WASTE PAINT ACCUMULATION AREA